

Exhibit P-40, BUDGET ITEM JUSTIFICATION								DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications							P-1 ITEM NOMENCLATURE E-2C Series Modification				
Program Element for Code B Items: Aircraft Procurement, Navy/APN-5 Aircraft Modifications							Other Related Program Elements				
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QTY		A									
COST (In Millions)	442.2	A	25.0	50.3	15.1	13.8	9.4	9.3	8.6	347.0	920.7
<p>This line item funds modifications to E-2C aircraft. The E-2C is an all weather, carrier based, airborne early warning and command and control aircraft. It extends task force defense perimeters by providing early warning of approaching enemy units and by vectoring interceptors into attack position. Additionally, the HAWKEYE provides strike control, radar surveillance, search and rescue assistance, communications relay and automatic tactical data exchange. The E-2C aircraft design service life is 10,000 flight hours with an average service life remaining through FY 2015. In future years, the E-2C will be a critical element of the Navy's Cooperative Engagement Capability (CEC). To realize efficiencies in cost and scheduling, the HAWKEYE 2000 OSIPs (SATCOM, Vapor Cycle, Mission Computer Upgrade (MCU) and CEC) were consolidated into one Engineering Change Proposal (ECP-418). Subsequent to establishment of ECP-418, it has become exceedingly difficult to coordinate kit and install quantities, contract dates, and training requirements across the four ECP-418 OSIPs. Beginning in FY 1999 the ECP-418 OSIPs were combined into one new OSIP, 19-99 Block Upgrade III. Consolidation of the OSIPs provides management a concise picture of cost and schedule requirements to modify and field HAWKEYE 2000 aircraft. As the result of today's technological advancements, the Commercial-Off-The-Shelf (COTS) hardware/software of the MCU will change or become obsolete in the very near future. The Technology Insertion OSIP (5-01) supports assembly, validation and configuration management of COTS hardware/software of the MCU. In the Outerwing Panel (OWP) OSIP, the FY05-FY08 funding increase is for OWP enhancements. The FY04-FY08 funding is for OWP enhancements. Critical War Fighting Enhancements OSIP (19-04) will fund preliminary design, flight test, and instrumentation engineering for In-flight refueling kit and will allow for prototype development and testing to interphase with F/A-18E/F fuel tanker.</p> <p>The Defense Emergency Relief Fund (DERF) II Naval Inventory Control Point (NAVICP) Project Unit (08330) procures 283 generators to retrofit fatigued iron generators in the fleet.</p> <p>The specific modifications budgeted and programmed are:</p>											
(TOA, \$ in Millions)											
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Complete</u>	<u>Total</u>
121-87	Structural Enhancements	56.3	5.6	3.3	3.0	2.6	0.2			1.9	72.9
74-88	Block Upgrade II	217.9	3.4	9.3	2.9	2.7	0.7			25.9	262.8
87-88	Outer Wing Panels	11.5		1.5	1.5	1.2	1.2	0.6			17.4
19-99	Block Upgrade III	140.0	7.0	26.0						247.3	420.3
5-01	Technology Insertion	16.5	9.0	7.2	7.8	7.4	7.3	8.8	8.6	71.9	144.4
19-04	Critical War Fighting Enhancements			3.0							3.0
Total		442.2	25.0	50.3	15.1	13.8	9.4	9.3	8.6	347.0	920.7
Note: Totals may not add due to rounding.											

MODIFICATION TITLE: Structural Enhancements (OSIP 121-87)

MODELS OF SYSTEMS AFFECTED: E-2C

TYPE MODIFICATION: Safety

DESCRIPTION/JUSTIFICATION:

The Navy Inventory Control Point (NAVICP) projected an E-2C propeller shortage in FY 2000. As a result, NAVICP approved a Logistics Engineering Change Proposal (LECP) to procure a new eight-blade propeller for the E-2C program office. The LECP funds the non-recurring and the procurement of 187 propellers only. The E-2C program office is responsible for funding the ground/flight test and overall system integration between Northrop Grumman (airframe), Allison (engine) and Hamilton-Sunstrand(propellers). The ground/flight test and prototype propeller kits were funded with APN-1 funds starting in FY99. Starting in FY00 retrofit propeller kits and install are being funded with APN-5 funds for seventy-five (75) E-2 aircraft.

Defense Emergency Relief Fund (DERF) II funding procures 283 generators to retrofit fatigued iron generators in fleet.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Developmental Component Testing began in November 1998 and is ongoing. First successful developmental flight test took place in April 01. Flight test is still ongoing and is expected to be completed in 2nd QTR 04. In FY04, the OSIP is ramping up the installation of propellers with associated ILS and other support.

Generators on contract began delivery in February 2003 at a rate of 10 units per month, a total of 233 were units delivered by December 2003.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
LECP Propellers	75	1.2																		
Installation Kits N/R		14.3																		
Installation Equipment																				
Generators (DERF)	283	4.4																		
Installation Equipment N/R																				
Engineering Change Orders		0.8																		
Data		0.8																		
Training Equipment		0.0	1	2.5																
Support Equipment		1.4																		
Automatic Wiring Analysis				1.5																
ILS																				
LECP Propellers		2.1		1.0		1.4		1.0												
Other Support		26.2																		
LECP Propellers		5.2		0.6		1.0		0.8												
Interim Contractor Support																				
Installation Cost																				
LECP Propellers	2	0.1	1	0.1	19	1.0	24	1.2												
Total Procurement		56.3		5.6		3.3		3.0												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K

CLASSIFICATION: **UNCLASSIFIED**

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **E-2C**

MODIFICATION TITLE: Structural Enhancements (OSIP 121-87)

INSTALLATION INFORMATION: This installation information is for the Propeller ECP only

METHOD OF IMPLEMENTATION: Contractor Depot Field Mod Team

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2003: _____

FY 2004: _____

FY 2005: _____

DELIVERY DATE: FY 2003: _____

FY 2004: _____

FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (75) kits	2	0.1	1	0.1	19	1.0	24	1.2												
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	2	0.1	1	0.1	19	1.0	24	1.2												

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	2		1			4	5	5	5	6	6	6	6								
Out	2			1		4	5	5	5	6	6	6	6								

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Notes:

1. Fleet installation schedule shifted due to flight test evaluation, aircraft inspection, and power plant repair delays.
2. Asterisk indicates amount less than \$50K

Exhibit P-3a		Individual Modification																		
MODIFICATION TITLE:		Block Upgrade II (OSIP 74-88)																		
MODELS OF SYSTEMS AFFECTED:		E-2C									TYPE MODIFICATION: Mission Performance Enhancement									
DESCRIPTION/JUSTIFICATION:																				
<p>1. Group II Mission Computer Replacement Program (GrII m RePR). This effort is a Commercial Off the Shelf (COTS) technology transition MOD program and does not expand the functional envelope of the current Weapon System.</p> <p>2. ECP 934-01 -"Dual Element Fire Warning System" -Replaces the single loop Fire Warning Detection System in the E-2C aircraft with a dual loop system configuration. The dual loop system will alleviate false warning indications. Seventy-four (74) aircraft will be retrofitted with this ECP.</p> <p>3. Radar Obsolesence - Funds Obsolescence/Readiness Improvements to the APS-145. The APS-145 is the number one mission degrader for the weapon system. This OSIP will resolve radar component reliability and obsolescence issues. The funding increase in FY04 over the value in FY03 is for radar obsolescence.</p> <p>4. ECP 939-01 - "Vapor Cycle" - Funds wiring modification, rebussing of undersized wiring between circuit breakers in the vapor cycle system. Fifty-Two (52) aircraft will be retrofitted with this modification.</p> <p>5. Engine Turbine Blade Cost Reduction & Effectiveness Improvement (CREI) - ' T56-A-427 First Stage Turbine Blade-Track Seal Replacement' - A more durable metal blade track seal will replace the current ceramic seal. This design change is consistent with newer technology engines and is expected to increase the reliability of the T56-A-427 engine by reducing low power removals.</p> <p>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Kits are being procured and installed on all applicable aircraft.</p>																				
FINANCIAL PLAN: (TOA, \$ in Millions)																				
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
Safety ECP 934-01Dual Fire Warn	74	1.7																		
Safety ECP 939-01 Vapor Cycle	52	0.8																		
Installation Kits N/R		47.6																		
Engine Turbine Blade (CREI)				1.2		1.1		0.8												
ECP xxx GrII mpr		13.8		1.3																
Installation Equipment																				
Radar Obsolesence						6.9		1.5												
Installation Equipment N/R		1.0																		
Engineering Change Orders																				
Data		15.2																		
Training Equipment	2	59.4																		
Support Equipment		40.9																		
ILS		15.2				0.3														
Other Support		21.8																		
Interim Contractor Support																				
Installation Cost																				
Safety ECP 939-01 Vapor Cycle	1	0.0	17	0.3	18	0.3	11	0.2												
Safety ECP 934-01 Dual Ele Fir Wa	18	0.6	15	0.5	18	0.6	13	0.4												
Total Procurement		217.9		3.4		9.3		2.9												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2CMODIFICATION TITLE: Block Upgrade II (OSIP 74-88)INSTALLATION INFORMATION: This installation information is for the Dual Element Fire Warning Safety ECP 934-01METHOD OF IMPLEMENTATION: Depot Drive In ModificationADMINISTRATIVE LEADTIME: 1 MonthsPRODUCTION LEADTIME: 1 Months

CONTRACT DATES: FY 2003: _____

FY 2004: _____

FY 2005: _____

DELIVERY DATE: FY 2003: _____

FY 2004: _____

FY 2005: _____

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (74) kits	18	0.6	15	0.5	18	0.6	13	0.4												
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	18	0.6	15	0.5	18	0.6	13	0.4												

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	18	4	4	4	3	5	5	4	4	4	4	3	2								
Out	9	9	4	4	4	3	5	5	4	4	4	4	3								

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Block Upgrade II (OSIP 74-88)

INSTALLATION INFORMATION: This installation information is for the Vapor Cycle Safety ECP 939-01

METHOD OF IMPLEMENTATION: Depot Drive-Modification (DIM)

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 2003:

FY 2004:

FY 2005:

DELIVERY DATE: FY 2003:

FY 2004:

FY 2005:

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (52) kits	1	0.0	17	0.3	18	0.3	11	0.2												
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	1	0.0	17	0.3	18	0.3	11	0.2												

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
In	1	5	4	4	4	5	4	5	4	4	4	2	1								
Out		1	5	4	4	4	5	4	5	4	4	4	2								

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										52
Out										52

Notes:
1. Asterisk indicates amount less than \$50K

Exhibit P-3a		Individual Modification																																																																																																																																																																																																																																																																																																																																																																																																																																																						
MODIFICATION TITLE:		Outer Wing Panel (OSIP 87-88)																																																																																																																																																																																																																																																																																																																																																																																																																																																						
MODELS OF SYSTEMS AFFECTED:		E-2C										TYPE MODIFICATION:										Safety																																																																																																																																																																																																																																																																																																																																																																																																																																		
<p>DESCRIPTION/JUSTIFICATION:</p> <p>The E-2C fatigue test and inspection of aircraft have identified fatigue stress cracks in Outer Wing Panels (OWP) which would cause the loss of aircraft and resulting in injury or loss of personnel. The OWP's installed on the E-2C aircraft are flight hour limited as follows: OWP's installed on T56-A-425 configured aircraft are limited to 6,000 flight hours and OWP's installed on T56-A-427 configured aircraft are limited to 7,500 flight hours. Teardowns of fleet OWP's showed that overhaul of the OWP is neither technically practical nor cost effective. This modification develops and incorporates enhancements to the OWP which extends the aircraft service life thru FY 2015. There are seventy-five (75) aircraft in the inventory. Thirty-four (34) aircraft will be enhanced with the AYC-1222 OWP (ECP 91145/C2A/859-97 Rev. (A) increasing the fatigue life limit of E-2C Outer Wing Panels. FY04 funding of \$1.5 million is a Congressional plus-up.</p> <p>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:</p> <p>An updated design OWP's was installed on all new production aircraft delivered after April 1985. Earlier aircraft will be retrofitted with the newly designed OWP.</p> <p>FINANCIAL PLAN: (TOA, \$ in Millions)</p> <table border="1"><thead><tr><th rowspan="2"></th><th colspan="2">Prior Years</th><th colspan="2">FY 2003</th><th colspan="2">FY 2004</th><th colspan="2">FY 2005</th><th colspan="2">FY 2006</th><th colspan="2">FY 2007</th><th colspan="2">FY 2008</th><th colspan="2">FY2009</th><th colspan="2">To Complete</th><th colspan="2">Total</th></tr><tr><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th><th>Qty</th><th>\$</th></tr></thead><tbody><tr><td>RDT&E</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>PROCUREMENT</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Installation Kits</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>ECP 91145/C2A/859-97 Rev. A</td><td></td><td></td><td></td><td></td><td>8</td><td>0.5</td><td>10</td><td>0.6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Attaching Hardware</td><td>5</td><td>1.4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Installation Kits N/R</td><td></td><td>6.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Installation Equipment</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Installation Equipment N/R</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Engineering Change Orders</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Data</td><td></td><td>1.7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Training Equipment</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Support Equipment</td><td></td><td>0.9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>ILS</td><td></td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Other Support</td><td></td><td>0.4</td><td></td><td></td><td></td><td></td><td>0.1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Interim Contractor Support</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Installation Cost</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>ECP 91145/C2A/859-97 Rev. A</td><td></td><td></td><td></td><td></td><td>8</td><td>1.0</td><td>9</td><td>0.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Total Procurement</td><td></td><td>11.5</td><td></td><td></td><td></td><td>1.5</td><td>1.5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> <p>Notes:</p> <ol style="list-style-type: none">1. Totals may not add due to rounding2. Asterisk indicates amount less than \$50K																							Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total		Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	RDT&E																					PROCUREMENT																					Installation Kits																					ECP 91145/C2A/859-97 Rev. A					8	0.5	10	0.6													Attaching Hardware	5	1.4																			Installation Kits N/R		6.8																			Installation Equipment																					Installation Equipment N/R																					Engineering Change Orders																					Data		1.7																			Training Equipment																					Support Equipment		0.9																			ILS		0.3																			Other Support		0.4					0.1														Interim Contractor Support																					Installation Cost																					ECP 91145/C2A/859-97 Rev. A					8	1.0	9	0.8													Total Procurement		11.5				1.5	1.5													
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Exhibit P-3aMODELS OF SYSTEMS AFFECTED: E-2CMODIFICATION TITLE: Outer Wing Panel (OSIP 87-88)INSTALLATION INFORMATION: ECP 91145/C-2A/859-97 Rev. AMETHOD OF IMPLEMENTATION: Depot Drive In ModificationADMINISTRATIVE LEADTIME: 1 MonthsPRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 2003: _____

FY 2004: Jan-04FY 2005: Dec-04

DELIVERY DATE: FY 2003: _____

FY 2004: May-04FY 2005: Mar-05

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY () kits																				
FY 2003 () kits																				
FY 2004 (8) kits					8	1.0														
FY 2005 (10) kits							9	0.8												
FY 2006 (7) kits																				
FY 2007 (8) kits																				
FY 2008 (1) kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL					8	1.0	9	0.8												

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								4	4		3	3	3								
Out									4	4		3	3								

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

Individual Modification

MODIFICATION TITLE:

Block Upgrade III (OSIP 19-99)

MODELS OF SYSTEMS AFFECTED:

E-2C

TYPE MODIFICATION:

Mission Performance Enhancement

DESCRIPTION/JUSTIFICATION:

The HAWKEYE 2000 OSIPs (Satellite Communications 21-95, Vapor Cycle 22-95, Mission Computer Upgrade 4-97, and Cooperative Engagement Capability 12-97) were consolidated into one engineering change proposal (ECP-418) to realize efficiencies in cost and scheduling. Subsequent to establishment of ECP-418, it has become exceedingly difficult to coordinate kit and install quantities, contract dates, and training requirements across the four ECP-418 OSIPs. Beginning in FY 1999 the ECP-418 OSIPs were combined into one new OSIP, 19-99 Block Upgrade III. Consolidation of the OSIPs provides management a concise picture of cost and schedule requirements to modify and field HAWKEYE 2000 aircraft. The funding in FY99 thru FY00 for training equipment is to support the HAWKEYE 2000 production aircraft. The funding procured one (1) of two (2) CEC Antenna Trainers, two (2) of three (3) Weapon System Trainer (WST) modifications, Maintenance trainer design, WST design, Computer Based Trainer (CBT) update, training curriculum and initial training. To complete includes one (1) Integrated System Maintenance Trainer (ISMT), one (1) CEC Antenna Trainer and one (1) Weapon System Trainer modifications. There are seventy-five (75) total aircraft in the inventory. To date three (3) aircraft have been retrofitted with this ECP. Navy intends on retrofitting a portion of the E-2C aircraft above and beyond the 21 aircraft multi-year procurement.

Satellite Communication (SATCOM): By JCS directives, all components of the Armed Forces who have satellite communications must be able to communicate using the Demand Assign Multiple Access (DAMA) waveform and be capable of narrow band secure voice. To meet these requirements the E-2C program will integrate Mini-DAMA into the aircraft. The Mini-DAMA unit is a UHF, full duplex radio with four full duplex ports and eight half duplex baseboard input/output. It incorporates the UHF SATCOM, line of sight radio functions, 5 and 25 KHz DAMA waveforms and embedded OTCIXS II, KGV-11 (TRANSEC) and COMSEC module for odenwire encryption for both 5 and 25 KHz DAMA functions. The Mini-DAMA has growth provisions for secure voice (ANDVT), TADIX-A, KG-84A and SAFENET. Previously OSIP# 21-95. ORD Number 174-094-87 dated 12 Aug 87. There are seventy-five (75) aircraft in the inventory. Fifty-Five (55) aircraft will be retrofitted with this modification. FY04 funding of \$3.0 million is a Congressional plus-up.

Mission Computer Upgrade (MCU): The L-304 central data processing computer uses inputs from onboard sensors, data links, and a library of stored data to present a symbolic representation of the tactical situation to the operators. Data expansion resulting from Update Development Program II has pushed the computer capability to it's ultimate limit, preventing utilization of improved target detection which could be achieved by emerging radar technology, infrared search and track, and SATCOM. All of these technologies are needed for execution of the E-2C battle management mission and for cooperative engagement operations. This OSIP funds retrofit of a replacement computer based on proven advances in computer technology and developed under the RDT&E Program Element No. 0204152N. As part of the MCU suite, the three (3) existing Cathode Ray Tube displays will be replaced with Advance Control Indicator Set (ACIS) workstations incorporating flat panel displays, and connected via a local area network. The layout of the ACIS workstation controls has been heavily influenced by Fleet inputs. Additionally, based on Commercial Off The Shelf (COTS) technology, the ACIS workstations will streamline Integrated Logistics Support and facilitate future upgrades. Previously OSIP# 4-97. ORD Number 371-88-94 dated 20 Sep 94. There are seventy-five (75) aircraft in the inventory. Navy intends on retrofitting a portion of the E-2C aircraft above and beyond the 21 aircraft multi-year procurement.

Cooperative Engagement Capability (CEC): The Navy has developed the capability to share sensor data through a network and perform the targeting process using sensors installed in remote platforms to augment the target position information on individual ships. The E-2C radar and passive detection systems provide vital target information over an increased surveillance area for greater situational awareness and provides early warning of distant targets. This program identifies the costs associated with integrating CEC into 53 E-2Cs and developing the support structure necessary to successfully deploy the system. Previously OSIP# 12-97. ORD Number 388-86-95 dated 4 Jan 95. There are seventy-five (75) aircraft in the inventory. Navy intends on retrofitting a portion of the E-2C aircraft above and beyond the 21 aircraft multi-year procurement. FY04 funding was increased to retrofit six (6) Hawkeye 2000 with CEC.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

SATCOM: PMW-156 is the sponsor on the Mini-DAMA. LRIP deliveries started in June 1996. Operational Assessment completed and production has resumed.

Vapor Cycle: N/A.

Mission Computer Upgrade (MCU): LRIP decision was granted in July 1997. TECHEVAL was successfully completed in Oct. 2000. OPEVAL was successfully completed in July 01. Full Rate Production began in FY01.

Cooperative Engagement Capability (CEC): PEO TAD(C) is the sponsor of Cooperative Engagement Capability.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
ECP 418-Hawkeye CEC MCU	3	26.2																	3	26.2
E-2C SATCOM MINI DAMA Kit	17	6.0			5	1.6										33	13.2	55	20.8	
Installation Kits N/R																				
E-2C SATCOM MINI-DAMA						0.2														
Installation Equipment																				
CEC Boxes	4	21.9	1	7.0	6	23.0										42	165.0	53	216.9	
ECP 418-Hawkeye 2000	3	32.6																3	32.6	
Installation Equipment N/R																				
Engineering Change Orders																				
Data		0.7				0.1											7.3			8.1
Training Equipment	3	34.6				0.3										2	21.8	5	56.7	
ISMT Trainer																1	11.5	1	11.5	
Support Equipment		0.9															9.9			10.9
ILS		0.1				0.0											5.1			5.2
Other Support		8.1				0.8											13.5			22.4
Interim Contractor Support																				
Installation Cost																				
ECP 418-Hawkeye 2000	3	8.7																	3	8.7
Total Procurement		140.0		7.0		26.0											247.3			420.3

Notes:

1. Totals may not add due to rounding

2. FY04 6 CEC boxes \$23279 for HE2K backfits

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: E-2C

MODIFICATION TITLE: Block Upgrade III (OSIP 19-99)

INSTALLATION INFORMATION: ECP 418

METHOD OF IMPLEMENTATION: Contractor Drive-In Modification (2 year lead-time)

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 18 Months

CONTRACT DATES: FY 2003: FY 2004: FY 2005:

DELIVERY DATE: FY 2003: FY 2004: FY 2005:

(\$ in Millions)																				
Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY (3) kits	3	8.7																	3	8.7
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	3	8.7																	3	8.7

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	3																				
Out	2					1															

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										3
Out										3

Exhibit P-3a		Individual Modification																		
MODIFICATION TITLE:		<u>Technology Insertion (OSIP 5-01)</u>																		
MODELS OF SYSTEMS AFFECTED:		<u>E-2C</u>					TYPE MODIFICATION: <u>Mission Performance Enhancement</u>													
<p>DESCRIPTION/JUSTIFICATION:</p> <p>Commercial technology obsolescence drives hardware and software changes in Computing Resources. Funding is required to support capability for assembly, validation, and configuration management of Commercial Off-The-Shelf (COTS) hardware/software provided to fleet squadrons and updated on a 4-year technology insertion cycle. Specific examples include video boards, memory boards, CPU cards, compilers, middleware, backplanes, and operating systems that will change or become obsolete. The new configuration must be validated, integrated, and controlled. There are seventy-five (75) aircraft in the inventory.</p> <p>DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:</p> <p>The Hawkeye 2000 Program Support Activity (PSA) will insure software is upgraded, revised, and integrated so it functions with the versions of the COTS hardware and software delivered. The integration effort must start no less than one year prior to the delivery.</p>																				
FINANCIAL PLAN: (TOA, \$ in Millions)																				
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
Installation Kits N/R																				
Installation Equipment																				
Installation Equipment N/R																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
ILS		1.4		0.5		0.4		0.5												
Other Support																				
ACIS & MC CM Upgrade Support		0.9		0.5		0.3		0.5												
CEC CM & Upgrade Support		0.9		0.5		0.3		0.4												
Software Tools		1.9		1.2		1.2		1.2												
Software Integration & CM		6.8		3.8		3.0		3.2												
Software Upgrades		4.6		2.6		1.9		2.0												
Interim Contractor Support																				
Installation Cost																				
Total Procurement		16.5		9.0		7.2		7.8												
Notes: 1. Totals may not add due to rounding																				

Exhibit P-3a

Individual Modification

MODIFICATION TITLE:

Critical Warfighting Enhancements (OSIP 19-04)

MODELS OF SYSTEMS AFFECTED:

E-2C

TYPE MODIFICATION:

Mission Performance Enhancements

DESCRIPTION/JUSTIFICATION:

These resources will be used to procure an In-Flight Refueling kit, which was originally developed for the Israeli Air Force E-2's, for initial integration design activities. This system has been successfully fielded on an Israeli E-2, and qualified behind a C-130 tanker aircraft. Near term warfighting improvements, based on lessons-learned from Operation Enduring Freedom (OEF), and Operation Iraqi Freedom (OIF), identified a requirement for increased E-2C on-station time for battlespace surveillance and targeting. Initial efforts will focus on demonstrating compatibility behind the F-18E/F tanker package, which is soon to be the only organic (off-the-ship) tanker in the Navy fleet, with the S-3 phasing out. FY04 funding is a Congressional plus-up.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract turn-on is expected by 2nd Qtr FY04, with design integration activities continuing through 3rd Qtr FY04. A PDR and CDR for this effort are tentatively scheduled for 3rd Qtr FY04. Flight testing activities are tentatively scheduled to commence 1st Qtr FY05.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				0.0
Installation Kits N/R					1	3.0													1	3.0
Installation Equipment																				0.0
Installation Equipment N/R																				0.0
Engineering Change Orders																				0.0
Data																				0.0
Training Equipment																				0.0
Support Equipment																				0.0
ILS																				0.0
Other Support																				0.0
Interim Contractor Support																				0.0
Installation Cost																				
																				0.0
Total Procurement		0.0		0.0		3.0		0.0		0.0		0.0		0.0		0.0		0.0		3.0

Notes:

1. Totals may not add due to rounding

2. Asterisk indicates amount less than \$50K